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Cooperative Learning Activities in Arts of Prathom Suksa 4 Students Khon Kaen University Demonstration School Primary Section (Modindaeng)

Janya Srisumra^{a,*}, Wannam Nontamolee^a, Sudjai Srijamon^a^a*Faculty of Education Khon Kaen University, Khon Kaen, 40002, Thailand*

Abstract

This research was aimed at studying a learner-centered approach through cooperative learning for the Art subject of Prathom Suksa 4 (Grade 4). The sample group consisted of 34 Grade 4 students in Form 4/1, Khon Kaen University Demonstration School (Modindaeng) during the academic year 2012. The sample group was obtained by purposive random. The research was based on one group, pretest-posttest experimental research design in which analysis of the target group's achievement was based on t-test using SPSS/PC⁺ program. The significance level was set at .01 level. Students' work outcomes were also assessed by peers and the teacher. The criteria determined was 80% of the students passing at least 70% on the total score.

The findings indicated that the learning achievement scores of the target group were higher after the treatment than before it at a significant level of .01. All of the students (100%) passed the criteria from peers' and teacher's assessment.

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Keyword: Cooperative learning activities

1. Background and Importance of the Problem

The National Education Act 1999 which has been effective since August 20, 1000 resulted in education reform, especially from Section 22, Part 4, which states that all learners are able to learn and develop themselves.

* Corresponding author Tel.: +668-9711-1372
E-mail address: jeawsri@gmail.com

Learners must be considered the most important in teaching and learning. Education reform is thus aimed towards learner-centered instruction (The Office of Education Reform, 2011).

The society nowadays is complex, dynamic, and changes rapidly. People are not able to cope with this complexity and rapid changes. Hence, critical situations happen, leading to problems such as poverty, unemployment, stress, violence, addicted drugs, AIDS, accidents, crime, environmental deterioration, etc. People are not able to manage their own lives and live happily in the society. Rote learning or attempt to survive cannot make people face or solve the said problems because the academic world and the real world are different. Learning that emphasizes subject contents only separates the truth of life and complex society away from classrooms. The heart of learning reform is to change from subject content to human or learner-centered instruction (Prawes Wasri, 2000). Learner-centered instruction is the concept proposed by John Dewey who initiated the idea of “Learning by Doing”, which has been widely accepted around the world. Instruction in which learners can practice is an important change of roles from receivers to learners and change of teachers from one who transfers knowledge to an organizer of learning experience for learners. Such role changing is like changing the focus point of teaching and learning to the learners than the teacher. Therefore, learners become the center of the teaching and learning, where the learning roles are (Tissana Khaemmanee, 2002). Cooperative learning has been developed based on cooperation in learning of Johnson and Johnson (1974: 213 - 240) who showed that learners should cooperate to learn rather than compete to learn. Competition leads to win and lose, which is different from cooperation which leads to win-win situation that is more beneficial both for the mind and intellect. The 5 principles of cooperative learning are: (1) Learning depends on positive interdependence. Everyone is equal and has to depend on one another for common success; (2) Good learning relies on face to face interaction to exchange information and different pieces of data and learning; (3) Cooperative learning relies on social skills, especially in working together; (4) Cooperative learning involves group processing used in working; (5) Cooperative learning requires a work outcome or achievement both individually and in group that can be accounted for. Besides knowledge building which is broader and deeper, cooperative learning helps to develop learners socially and emotionally. Learners also have a chance to practice different skills and processes that are necessary for their life.

2. Problem Statement

The art subject at Khon Kaen University Demonstration School (Primary Section, Modindaeng) aims at developing knowledge, thinking and understanding among students. Thinking, which is the basis of art, is the function of patterns, local wisdom, and cultural root. Thinking means searching art to express the meaning for oneself in terms of potentiality and interest. It trains students how to learn and elaborately observe things, which lead to love and values. Students will appreciate the values of art and the surrounding. Their attitudes, concentration, personal tastes, processes, expression, creativeness will promote learners to become aware of the roles of arts in the society. Experiences of art teaching indicates that most students like this subject, but do not really like doing assignments. They lack responsibility and creativity in their work. They do not appreciate their own work, just completing it for submission in time. Students usually lack continuous practices and only do it during the art lessons.

With the stated reasons, the researchers attempted to solve the problems together by finding a means to encourage students to be more attentive and responsible to create their work so that they develop love and appreciation of art and the surrounding. In our studies of various teaching approaches, we found that **Cooperative Learning** is an approach that focuses on small team work consisting of students of mixed ability. This lessens the gap in group working since most students still lack group working skills. Normally, good and clever students work alone, while uninterested students do not help and feel relieved because someone take the responsibility. Therefore, learning activities in which friends help one another should be more effective. Clever, medium, and weak students participate efficiently without taking advantages of one another. Each student is

aware of his or her own capacity and part that drives the work to success. Thus, everyone is eager to make the assigned job complete, resulting in improved achievement. The researchers believe that cooperative learning applied in the learner-centered situation would solve the above-mentioned problems.

3. Research Question

How effective is the cooperative learning model in improving students' learning achievement?

4. Purpose of the Study

- 1) To study the effectiveness of the cooperative learning model in art subject applied with Prathon Suksa 4 (Form 4/1) students of Khon Kaen University Demonstration School (Modindaeng)
- 2) To study the students' learning achievement, peers' and teacher's evaluation of students' work under the cooperative learning model in art subject of Prathon Suksa 4 (Form 4/1) students of Khon Kaen University Demonstration School (Modindaeng)

5. Research Methods

5.1 Target group

The target group comprised 51 Prathon Suksa 4 (Form 4/1) students of Khon Kaen University Demonstration School (Modindaeng) during the first semester of academic year 2012.

5.2 Research instruments

- 1) Eight-hour lesson plans based on the cooperative learning model in the Grade 4 art subject on the topic of Creation of Art Work from Scraps
- 2) An achievement test of Art subject on the topic of Creation of Art Work from Scraps for Grade 4
- 3) A peer evaluation form for art work
- 4) A teacher evaluation form for art work

5.3 Data Collection

Data on learning achievement and teacher's and peers' evaluation on Grade 4 students' art work on the topic of Creation of Art Work from Scraps was collected by the following steps

- 1) Pre-test – An achievement test of Grade 4 Art subject on the topic of Creation of Art Work from Scraps was conducted on the sample group.
- 2) Treatment – The researchers implemented the cooperative learning model of Grade 4 Art subject on the topic of Creation of Art Work from Scraps
- 3) Post-test – The achievement test of Grade 4 Art subject on the topic of Creation of Art Work from Scraps was conducted on the sample group after treatment. Evaluation was conducted by peers and the teacher.

5.4 Research Variables

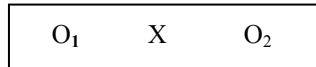
- 1) Dependent variables – Lesson plans for the cooperative learning model on Grade 4 art subject on the topic of Creation of Art Work from Scraps

2) Independent variables

- Students' achievement test of Art subject on the topic of Creation of Art Work from Scraps
- Results of peers' and teacher's evaluation

5.5 Experiment

This research was based on experimental research using the One Group Pre-test - Post-test Design, as in the following chart (Puangrat Taweerat, 1997):



O_1 means the pre-test given to the target group before the treatment.

X means treatment by cooperative learning model.

O_2 means the post-test given to the target group after the treatment.

5.6 Data Analysis

- 1) Comparison of mean scores of the achievement test given before and after the treatment by T (t-test) using SPSS/ PC⁺ program.
- 2) Peers' evaluation showing 80% of the students passing 70% of the total score.

6. Findings

1. The results of achievement test of Art subject on the topic of Creation of Art Work from Scraps conducted before and after the treatment are as follows:

Table 1. The results of achievement test of Art subject on the topic of Creation of Art Work from Scraps conducted before and after the treatment

Testing	N (persons)	\bar{X}	S.D.	t-test
Pre-test	51	5.57	1.91	6.49*
Post-test	51	7.12	1.42	

*P < .01

The table shows that the mean achievement score of the target group was significantly higher after the treatment than before the treatment at .01, as assumed in the hypothesis.

2. The results of peers' and teacher's evaluation

Table 2. The results of peers' and teacher's evaluation

Team	Peer and teacher evaluation score (Full score = 20)	Percentage
The reek	14.25	71.25
Alien	14.75	73.75
Sao Na Sai	16.37	81.85
Krading	16.87	81.85

Team	Peer and teacher evaluation score (Full score = 20)	Percentage
999	15.87	79.35
Mobile	17	85.50
Soviet	14.12	70.60
Sud Lor	15.62	78.10

Table 2 shows that all of the students (100%) passed the criteria set from peers' and teacher's evaluation.

7. Conclusions

The findings indicated that the target group had significantly higher learning achievement after the treatment than before the treatment at .01. All students (100%) passed the criteria set from peers' and teacher's evaluation, or at least 80% of the students passed the level of 70% of the total score in peers' and teacher's evaluation according to the hypothesis. The findings correlated to Skawduean Chaisa (2010), Uraiporn Wongboh (2011), Weerawit Lertratthamrongkul (2011), Kiatiphum Phunphat (2012), Akkapong Sinthao (2012), who have applied a cooperative learning model in their teaching and found higher achievements of students than before the treatment. The reasons are as follows:

1. The students' achievement after the cooperative instruction model began from the teacher and students planning the teaching and learning together. They agreed on the operation steps before learning. During the lesson, evaluation was conducted regularly by peer group and the teacher. This encouraged the students to be eager to learn, to work on the assignment, and to submit their work. The students knew the results of their work soon after they finished it. This also contributed to higher achievement than the set criteria.

2. Cooperative learning skills resulted in cooperation in team working. The students did not take advantage of one another. Instead, everyone took part in learning and assisted one another in each group. Thus, each student had a chance to develop various skills, such as thinking process, group process, problem solving process which trained the students to think and act systematically in order to efficiently attain the objectives. If a student happened to be irresponsible, highly responsible friends would encourage him or her all the time. Tools, or stationery were shared, and everyone was eager to help in the team. Therefore, all students had a sense of belonging and had moral support to drive the team to success and efficiency.

8. Recommendations

Recommendations for teaching and learning

1. This study began with orientation of the lesson plans for the students to understand the learning model and become aware of the importance of team work and oneself as a member in a team.
2. Teaching media should be various to suit cooperative learning activities. Students should understand the learning model used with them and should be aware of the importance of the group and themselves as members.
3. The teacher using a cooperative learning model should emphasize in each lesson for students to be aware of the importance of every one of their friends in the group. Even weak students are important. All should help each another so that the team will lead everyone to success and achieve the set objectives.

Recommendations for further research

1. Required students' characteristics should be studied, for example, courage to express oneself, self-confidence, cooperation in discussion and showing reasonable opinions. Weak students should be particularly trained in these characteristics to see if they improve their behaviors.
2. The same type of research should be conducted with other levels and other contents in order to improve the cooperative learning skills, particularly in small children as a basis for teaching and learning in higher levels.

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